



#10/Response
4-23-02
J. Hayes
PATENT APPLICATION
Attorney Docket No.: Q62336

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Kazuo ISHII, et al.

Appln. No.: 09/741,071

Confirmation No.: 7426

Group Art Unit: 2853

Filed: December 21, 2000

Examiner: Michael S. Brooke

For: INK JET PRINTING METHOD AND PRINTING APPARATUS

RESPONSE UNDER 37 C.F.R. § 1.111

Commissioner for Patents
Washington, D.C. 20231

Sir:

This Response is to the Office Action dated January 18, 2002.

I. Formal Matters

Claims 1-24 are pending in the application. Of these, claims 2, 4, 5, 7, 8 and 11-24 have been withdrawn from consideration by the Examiner.

The Examiner does not appear to have acknowledged Applicants' claim to priority under 35 U.S.C. § 119, or to have indicated that the certified copies of the priority documents have been received. Since the priority documents were submitted on April 24, 2001, Applicants respectfully request that the Examiner acknowledge Applicants' claim to priority and indicate that the certified copies of the three priority documents have been received.

The Examiner has marked item 10 on the Office Action Summary, which refers to the drawings filed on May 24, 2001. However, the Examiner has not indicated whether the drawings are accepted or objected to by the Examiner. Accordingly,

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Applicants respectfully request that the Examiner indicate that the drawings have been accepted in the next communication to Applicants.

II. Response to rejection of claims 1 and 6 under 35 U.S.C. § 103

On pages 2-3 of the Office Action, claims 1 and 6 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tamura et al. (U.S. Patent 4,794,463) in view of Higuchi et al. (U.S. Patent 5,539,440).

The Examiner cites Tamura et al. as teaching an ink jet printing apparatus that uses an electrostatic field generated between control electrodes (18a, 18b) and back electrode (2) to discharge an oily ink (21) onto a printing medium (6) on the basis of image data. *See* Fig. 2. The Examiner acknowledges that Tamura et al. does not teach fixing the image.

The Examiner cites Higuchi et al. as teaching an electrostatic printing apparatus which discharges an oil ink onto a printing medium and the use of a fan to dry (fix) the printing medium after printing has taken place. *See* Higuchi et al. at col. 14, line 16 and col. 20, lines 17-19. The Examiner takes the position that it would have been obvious to one of ordinary skill in the art to provide a fixing device in Tamura et al. to dry the printed image to prevent smearing of the image as taught by Higuchi et al.

Applicants submit that this § 103 rejection should be withdrawn because Tamura et al. and Higuchi et al. do not disclose or render obvious the ink jet printing method and apparatus of present claims 1 and 6, respectively.

Tamura et al. appears to be directed to an ink jet printing apparatus that uses an electrostatic field. Specifically, an electrostatic field is generated between the ink jet head 1 and cylindrical back electrode 2.

In contrast, Higuchi et al. appears to be directed to an image forming apparatus having a drum 1 with an ink holding layer 2 formed on the surface of drum 1. Ink holding layer 2 has ink holding regions 3a and a region 3b having poor ink holding properties. A charge supplying section 6 selectively supplies charges to the ink held in the ink holding regions 3a on the basis of an image signal and the selected ink held on the ink holding layer 2 is transferred onto a printing medium 8.

Since Tamura et al. and Higuchi et al. are directed to different types of image forming apparatus, a person of ordinary skill in the art would not be motivated to combine Tamura et al. and Higuchi et al. As noted above, Tamura et al. is directed to an electrostatic type ink jet apparatus that does not require a fixing step (col. 1, lines 10-14). Furthermore, Higuchi et al. does not have any relation to ink jet recording processes (see col. 2, line 46 and col. 16, lines 37-39 where it is indicated that the process is distinct from an ink jet recording process). Accordingly, a person of ordinary skill in the art would not be motivated to combine the teachings of these two references.

Still further, Tamura et al. actually teaches away from fixing the image. At col. 1, lines 10-14, Tamura et al. discloses that since the ink is caused to be attached directly to the recording sheet, neither developing nor fixing processes are necessary. Therefore, a person of ordinary skill in the art would not be motivated to modify Tamura et al. by including a fixing step.

For these reasons, Applicants submit that the § 103 rejection of claims 1 and 6 over Tamura et al. in view of Higuchi et al. should be reconsidered and withdrawn.

III. Response to rejection of claims 3, 9 and 10 under 35 U.S.C. § 103(a)

On pages 3-4 of the Office Action, claims 3, 9 and 10 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tamura et al. in view of Higuchi et al. and further in view of Carley (U.S. Patent 4,314,263).

Applicants submit that this § 103 rejection should be reconsidered and withdrawn for the same reasons that the § 103 rejection of claims 1 and 6 over Tamura et al. in view of Higuchi et al. should be reconsidered and withdrawn. Carley does not make up for the deficiencies of Tamura et al. and Higuchi et al. discussed above.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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